PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE RECONSTRUCTED INTERSECTION OF MD 182 (LAYHILL/NORWOOD ROADS) AND EDNOR/ NORWOOD ROADS IN MONTGOMERY COUNTY. NORWOOD ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION IS TO OPERATE IN A NEMA SIX PHASE FULLY-TRAFFIC-ACTUATED MODE. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN FOR THE WESTBOUND MD 182 (LAYHILL ROAD) MOVEMENT. THE THROUGH MOVEMENTS ON LAYHILL/ EDNOR ROADS WILL OPERATE CONCURRENTLY. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN FROM THE NORTHBOUND NORWOOD ROAD MOVEMENT. THE THROUGH MOVEMENTS ON NORWOOD ROAD WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL AN EIGHT PHASE, FULLY-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH ONE FOUR-CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS AND TELEMTRY MODULE. WITH ALL THE NECESSARY HARNESSES AND EQUIPMENT FOR A MONTGOMERY COUNTY INSTALLATION. TO BE HOUSED IN A NEMA SIZE 6 BASE-MOUNTED CABINET.

GENERAL NOTES

PF — PROPOSED UNDERGROUND

ML - MICRO LOOP PROBE

ELECTRICAL SERVICE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY.

THE MCDPW WILL INSTALL THE WIDE AREA VIDEO VEHICLE DETECTION SYSTEM. CONTACT MR. ROBERT GONZALES AT 240-777-8761 ONCE THE EQUIPMENT IS AVAIALBE.

WIRING DIAGRAM RUN NEW INTERCONNECT CABLE AS SHOWN FROM THE EXISTING SPLICE/TERMINAL CABINET TO THE NEW SIGNAL CABINET, REMOVE THE EXISTING INTERCONNECT CABLE WHEN THE EXISTING SIGNAL IS REMOVED. — EXISTING INTERCONNECT TO MD 108 @ 792470-1552 DR BIRD RD. L,M,O,V __ C&P M4109 C&P 58 7 MICRO-LOOP PROBE L,M,O,V C&P 60 BA59 → 5-CONDUCTOR CABLE A,B,C,J, (NO.14 A.W.G.) L,M,O,V-L,M,O,P, I,K,N—NOT USED R,S,V 7-CONDUCTOR CABLE (NO. 14 A.W.G.) D—>₹ -J,L,M, 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.) 0,P,V P — BARE COPPER STRANDED GROUND WIRE (NO. 6 A.W.G.) EXISTING INTERCONNECT Q — NOT USED TO MD 28 @ MD 182 12 PAIR OVERHEAD SELF SUPPORTIG JELLY FILLED TELEMETRY CABLE (19 A.W.G.) R — I-WIRE #4 A.W.G. FOR TRAFFIC SIGNAL ELECTRICAL SERVICE

EXISTING INTERCONNECT CABLE

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

CATEGORY CODE NO.	SPEC. SECTION	QUANTITY	DESCRIPTION
971017	816	I EA.	EIGHT PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER AND TELEMETRY MODULE WITH ALL NECESSARY HARNESSES AND EQUIPMENT FOR MONTGOMERY COUNTY INSTALLATION HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
973023	813	96 S.F.	SHEET ALUMINUM SIGNS - 2 EACH RIO-12 (36" X 42") - MAST ARM MOUNT - I EACH R3-5L (30" X 36") - MAST ARM MOUNT - I EACH D3-2 DUAL FACED (VAR. X 16")- MAST ARM MOUNT - EACH D3-2 BACK TO BACK (VAR. X 32")- MAST ARM MOUNT - I EACH ROUTE MARKERS- M3-3 (24" X 12"), MI-5 (30" X 24"), M6-IR (21" X 15") OM-I(I) (18" X 18")- GROUND MOUNTED - I EACH OM-I(I) (18" X 18")-GROUND MOUNTED
900000	817	I EA.	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER (DELAY OUTPUT)
900000	818	I EA.	27 FT. STEEL MAST ARM POLE WITH A SINGLE 70 FT. MAST ARM
	_	EQUIPN	MENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE SYSTEMS TECHNICAL CENTER, 1283 SEVENS LOCKS ROAD, BUILDING "C", ROCKVILLE MARYLAND 20852. A TWENTY-FOUR (24) HOUR NOTICE IS REQUIRED PRIOR TO DELIVERY. CONTACT MR. EMIL WOLANIN AT 301-271-2208.

QUANTITY	
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DESCRIPTION

POLE MOUNTED CABINET/CONTROLLER

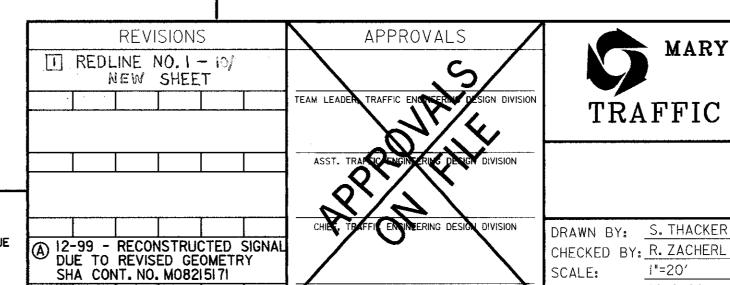
PHASE DIAGRAM

		I	2	3	4	5	6	7	8	
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	PHASE 2 + 5	G G-	G	R	R	R	R	R	R	
ſ	5 CHANGE	G Y—	G	R	R	R	R	R	R	*
	PHASE 2 + 6	G	G	G	G	R	R	R	R	4
	2 + 6 CHANGE	Υ	Υ	Υ	Υ	R	R	R	R	
ſ	PHASE 3 + 8	R	R	R	R	d G_	G	R	R	← ₁↑
ſ	3 CHANGE	R	R	R	R	G 4 -Y	G	R	R	. !!
	PHASE 4 + 8	R	R	R	R	G	G	G	G	I †
	4 + 8 CHANGE	R	R	R	R	Υ	Υ	Υ	Υ	
	FLASHING OPERATION	FL Y	FL Y	FL Y	FL Y	FL R	FL R	FL R	FL R	+++

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	SPEC. SECTION	QUAN	TITY	DESCRIPTION
203030	205	5	C.Y.	TEST PIT EXCAVATION
500000	556	100	L.F.	24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
801004	801	6	C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
801104	812	14.5	L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
801106	812	16.5	L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
801716	801	5	S.F.	RELOCATE EXISTING SIGN
802501	810	80	L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805 8	805	44	L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - PUSHED
805150	805	35	L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805160	805	20	L.F.	FURNISH AND INSTALL I IN. LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
810010	810	120	L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - I CONDUCTOR (NO. 4 A.W.G. THHN/THWN)
811001	811	10	EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	813	14	S.F.	INSTALL SHEET ALUMINUM SIGN - GROUND MOUNTED
8 30 5	813	82	S.F.	INSTALL SHEET ALUMINUM SIGN - OVERHEAD MOUNT
837001	804	2	EA.	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
838003	807	1	EA.	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE, 3 WIRE SYSTEM)
800000	814	28	EA.	FURNISH AND INSTALL 12 IN. VEHICULAR (POLYCARBONATE) SIGNAL HEAD - MAST ARM MOUNT
861107	810	160	L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
861108	810	1250	L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
861116	810	300	L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
862102	815	60	L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
866104	818	1	EA.	FURNISH AND INSTALL 20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
800000	805	665	L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	805	105	L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	805	200	L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	806	1	EA.	FURNISH AND INSTALL 250 WATT HPS VAPOR LUMINAIRE WITH PHOTO-CELL
800000	816		EA.	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
800000	818	1	EA.	INSTALL 27 FT. STEEL MAST ARM POLE WITH A SINGLE 70 FT. MAST ARM
800000	811	6	EA.	RESET EXISTING ELECTRICAL HANDHOLE TOP AND INSTALL CONCRETE COLLAR
800000	XXX	1	LS	REMOVAL AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT
800000	XXX	1	LS	REMOVAL OF EXISTING SIGNAL EQUIPMENT TO BE SALVAGED
800000	XXX	l	LS	DELIVERY OF SALVAGED SIGNAL EQUIPMENT AND MATERIAL
800000	XXX	1	EA.	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN
800000	XXX		EA.	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FOOT LEAD-IN
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION

MD 182 (LAYHILL ROAD) AND

M082I5I7I

MONTGOMERY

15018204.95

EDNOR / NORWOOD ROADS TS NO. S. THACKER F.A.P. NO.

S.H.A. NO.

LOG MILE:

COUNTY:

DRAWN BY:

CALE:

DATE:

1"=20"

10-9-86

Dewberry & Davis

3120 Timanus Lane - Suite 21 Baitimore, Maryland 21244 410-265-9500



WHITNEY
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(410) 512-4500 JDM MA

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SHEET NO.

TS-2243A

T.I.M.S. NO.